

REMARKS

Claims 1-25 remain in the application. No claims have been allowed or indicted to be allowable.

In brief review, this application relates to improvements in a toneable duct of the type having a longitudinal wire embedded in the peripheral wall of a cylindrical conduit of plastic material. The wires in adjacent ducts must be connected together, and it is difficult to locate the wires and to free an end portion of the wires by removing plastic material from the duct peripheral wall.

In accordance with the present application, locating the wire is simplified by covering the wire with a plastic material that has a different color or other different visual appearance from the duct plastic material.

Freeing the end portion of a wire is simplified by using a lower density and softer plastic material to cover the wire. The wire covering plastic material is much easier to cut into and remove than the duct plastic material.

Although the plastic materials used for the duct and the wire covering are different by way of color and density, they preferably are compatible so that they crosslink. This insures the integrity of the duct peripheral wall and prevents leakage of moisture through the peripheral wall to the wire. The duct, the wire and the stripe of plastic material that covers the wire preferably are coextruded, although other arrangements are possible.

Original claims 1-16 were rejected under 35 U.S.C. § 102(b) on U.S. Patent No. 5,212,349 to Pelzer. It is plain that Pelzer does not disclose or suggest the concept of using different color plastic materials for the duct and the wire covering stripe to facilitate location of the wire. It also is plain that Pelzer does not disclose or suggest the concept of using a lower

density and softer plastic material to cover the wire so that the wire covering plastic material can easily be cut into and/or removed for accessing the wire.

The rejection of the claims on Pelzer is based on the word "similar" in claim 11 which provides that the material covering the wire is "identical or similar to the material of the duct."

The examiner contends that this claim recitation teaches a person of ordinary skill in the art that the duct and wire covering plastic materials are of different colors and densities.

The only specific disclosure in the Pelzer patent concerning the duct and wire covering plastic materials is in lines 43-47 of column 5:

"It is preferred the duct and filler material which is applied in a heated state to the groove be made of the same synthetic plastic, preferably high density polyethylene HDPE with a copper wire as the detector wire, preferably an enameled copper wire."

There is not even a remote hint in the Pelzer patent that the duct and the wire covering plastic materials could be of different colors and densities. Furthermore, there is not even a remote hint in the Pelzer patent of any way to facilitate locating and accessing the wire.

The Pelzer patent contains no explanation whatsoever as to the meaning of "similar" in claim 11. The dictionary definition of "similar" in the attached appendix indicates that "similar" is "more at SAME;" "having characteristics in common;" "strictly comparable;" "alike in substance or essentials;" "corresponding."

In the further explanation of different synonyms, the dictionary definition provides:

"SIMILAR implies the possibility of being mistaken for each other."

The Pelzer patent not only fails to anticipate the claims under 35 U.S.C. § 102(b), it does not even remotely suggest the claimed improvements to a person of ordinary skill in the art under 35 U.S.C. 103. There is nothing whatsoever in the Pelzer patent that would motivate a person of

ordinary skill in the art to make the duct and wire covering plastic materials in Pelzer of different colors and densities.

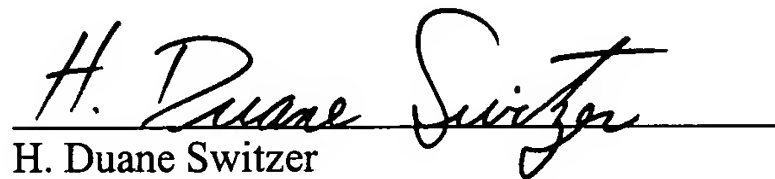
FIG. 10 of Pelzer does not disclose or suggest that the duct and wire covering plastic materials have different visual appearances. The use of identical or similar plastic materials means that they could be mistaken for one another, and their appearance would be the same.

Lines 64-68 of column 1 in Pelzer refer to a "softened" wire covering material, not to a "softer" material. As stated by Pelzer in lines 43-47 of column 5, the wire covering material is applied in a heated state. Lines 21 and 22 of column 2 explain that the wire covering filler material "has hardened in the meantime." The only teaching of Pelzer is that the wire covering filler material is melted when extruded into the groove over the wire. There is no teaching that the duct and wire covering materials differ in hardness in the finished duct. When the plastics harden and solidify, they will be of the same hardness because they are the same materials. Pelzer provides no motivation whatsoever to a person of ordinary skill in the art to use duct and wire covering plastic materials of different hardness.

With respect to claims 10-16, Pelzer does not disclose or suggest **coextruding** the duct, the wire and the wire covering stripe. Pelzer discloses alternate procedures for forming a longitudinal wire receiving groove in the duct wall beginning in line 20 of column 8, line 51 of column 10 and line 63 of column 10. Pelzer first forms the duct with a groove, then lays the wire in the groove, and then fills the groove with the wire covering plastic material. There is no disclosure or suggestion of **coextruding** the duct, the wire and the wire covering plastic material as disclosed and claimed in this application. The Pelzer duct is already extruded and solidified before the wire is placed in the duct groove. There is no way that the Pelzer disclosure can be construed as teaching **coextrusion** of the duct, the wire and the wire covering stripe.

In the absence of more pertinent art, this application is now in condition for allowance.

Respectfully submitted,

A handwritten signature in cursive script, reading "H. Duane Switzer", is written over a horizontal line.

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Attachment



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2 : a period marked by frivolous, outlandish, or illogical activity or behavior
sil-lo \sī-(l)ō/ *n*, *pl* silos [Sp] (1881) 1 : a trench, pit, or esp. a tall cylinder (as of wood or concrete) usu. sealed to exclude air and used for making and storing silage 2 a : a deep bin for storing material (as cement or coal) b : an underground structure for housing a guided missile
sil-ox-ane \sə-ˈlāk-sān, sī-/ *n* [silicon + oxygen + methane] (1917) : any of various compounds containing alternate silicon and oxygen atoms in either a linear or cyclic arrangement usu. with one or two organic groups attached to each silicon atom
silt \silt/ *n* [ME *cyllte*, prob. of Scand origin; akin to Dan *sylt* salt marsh; akin to OHG *salza* salt marsh, OE *sealt* salt] (15c) 1 : loose sedimentary material with rock particles usu. $\frac{1}{20}$ millimeter or less in diameter; also : soil containing 80 percent or more of such silt and less than 12 percent of clay 2 : a deposit of sediment (as by a river) — **silty** \sī-tē/ *adj*
silt *vi* (1799) : to become choked or obstructed with silt — often used with *up* (the channel *silted up*) ~ *vi* : to choke, fill, cover, or obstruct with silt or mud (the beaver had *silted* the creek — Hugh Fosburgh) — **silt-tation** \sīl-ˈtā-shən/ *n*
siltstone \sīl-ˈstōn/ *n* (ca. 1920) : a rock composed chiefly of indurated silt
Sil-u-res \sī-lū-rēz/ *n* [L] (ca. 1895) : a people of ancient Britain described by Tacitus as occupying chiefly southern Wales
Sil-u-ri-an \sī-lūr-ē-ən, sē-/ *adj* [L *Silures*] (1708) 1 : of or relating to the Silures or their place of habitation 2 : of, relating to, or being a period of the Paleozoic era between the Ordovician and Devonian or the corresponding system of rocks marked by numerous eurypterid crustaceans and the appearance of the first land plants — see GEOLOGIC TIME table — **Silurian** *n*
sil-va \sī-və/ *n* [NL, fr. L. wood, forest] (ca. 1848) : the forest trees of a region or country
Silvan *var* of SYLVAN
sil-ver \sī-vər/ *n* [ME, fr. OE *seolfor*; akin to OHG *silbar* silver, Lith *sidabras*] (bef. 12c) 1 : a white metallic element that is sonorous, ductile, very malleable, capable of a high degree of polish, and chiefly univalent in compounds, and that has the highest thermal and electric conductivity of any substance — see ELEMENT table 2 : silver as a commodity (the value of ~ has risen) 3 : coin made of silver 4 : articles (as hollowware or table flatware) made of or plated with silver; also : similar articles and esp. flatware of other metals (as stainless steel) 5 : a nearly neutral slightly brownish medium gray
silver *adj* (bef. 12c) 1 : made of silver 2 : resembling silver: as a : having a white lustrous sheen b : giving a soft resonant sound : dulcet in tone c : eloquently persuasive 3 : consisting of or yielding silver 4 : of, relating to, or characteristic of silver 5 : advocating the use of silver as a standard of currency 6 : of, relating to, or being a 25th anniversary or its celebration
silver *vi* **sil-vered**; **sil-ver-ing** \sīl-v(ə)-rīŋ/ (14c) 1 a : to cover with silver (as by electroplating) b : to coat with a substance (as a metal) resembling silver 2 a : to give a silvery luster to b : to make white like silver — **sil-ver-er** \sīl-vər-ər/ *n*
silver age *n* (1565) : an historical period of achievement secondary to that of a golden age
sil-ver-back \sīl-vər-bak/ *n* (1963) : an older adult usu. dominant male gorilla having gray or whitish hair on the back
silver bell *n* (1785) : any of a genus (*Halesia*) of trees and shrubs of the storax family; esp. : one (*H. carolina*) of the southeastern U.S. cultivated for its bell-shaped white flowers
sil-ver-ber-ry \sīl-vər-ber-ē/ *n* (1856) : a silvery No. American shrub *Elaeagnus commutata* of the oleaster family
silver bromide *n* (1885) : a compound AgBr that is extremely sensitive to light and is much used in the preparation of sensitive emulsion coatings for photographic materials
silver bullet *n* (1935) : something that acts as a magical weapon; esp. one that instantly solves a long-standing problem
silver certificate *n* (1882) : a certificate formerly issued against the deposit of silver coin as legal tender in the U.S. and its possessions
silver chloride *n* (1885) : a compound AgCl sensitive to light and used esp. for photographic materials
silver cord *n* [*The Silver Cord* (1926), play by Sidney Howard] (1942) : the emotional tie between mother and child and esp. son
silver fir *n* (1707) : any of various firs (genus *Abies*) with leaves that are white or silvery white beneath; esp. : a valuable European timber tree (*A. alba*)
sil-ver-fish \sīl-vər-fīsh/ *n* (1703) 1 : any of various silvery fishes (as tarpon or silversides) 2 : any of various small wingless insects (order Thysanura); esp. : one (*Lepisma saccharina*) found in houses and sometimes injurious esp. to sized papers or starched clothes
silver fox *n* (ca. 1792) : a genetically determined color phase of the common red fox in which the fur is black tipped with white
silver hake *n* (1884) : a common hake (*Merluccius bilinearis*) of the northern Atlantic coast of the U.S. that is an important food fish
silver iodide *n* (1885) : a compound AgI that darkens on exposure to light and is used in photography, rainmaking, and medicine
silver lining *n* [fr. the phrase “every cloud has a silver lining”] (1871) : a consoling or hopeful prospect
sil-ver-ly \sīl-vər-lē/ *adv* (1595) : with silvery appearance or sound
silver maple *n* (1765) 1 : a common maple (*Acer saccharinum*) of eastern No. America with deeply cut leaves that are light green above and silvery white below 2 : the hard close-grained but brittle light brown wood of the silver maple
silver \sīl-vər/ *adj* (bef. 12c) 1 : made of silver 2 : resembling or characteristic of silver : SILVERY
silver nitrate *n* (1885) : an irritant compound AgNO₃ that in contact with organic matter turns black and is used as a chemical reagent, in photography, and in medicine esp. as an antiseptic and caustic
silver paper *n* (ca. 1875) : TIN FOIL
silver perch *n* (1820) : any of various somewhat silvery fishes that resemble perch: as a : a drum (*Bairdiella chrysoura*) that occurs esp. along the more southern Atlantic coast of the U.S. — called also *madeira*, *yellowtail* b : WHITE PERCH 1

silver plate *n* (1610) 1 : domestic flatware and hollowware of silver or of a silver-plated base metal 2 : a plating of silver
sil-ver-point \sīl-vər-pōint/ *n* (1882) : a drawing technique utilizing a pencil of silver usu. on specially prepared paper or parchment
silver protein *n* (1928) : any of several colloidal light-sensitive preparations of silver and protein used in aqueous solution on mucous membranes as antiseptics
silver salmon *n* (1878) : COHO
silver screen *n* (1918) 1 : a motion-picture screen 2 : MOTION PICTURES
sil-ver-side \sīl-vər-sīd/ *n* (1820) : SILVERSIDES
sil-ver-sides \sīl-vər-sīdz/ *n* *pl* but *sing* or *pl* in *constr* (1851) : any of various small bony fishes (family Atherinidae) with a silvery stripe along each side of the body
sil-ver-smith \sīl-vər-smīth/ *n* (bef. 12c) : an artisan who makes articles of silverware — **sil-ver-smith-ing** *n*
silver spoon *n* [fr. the phrase “born with a silver spoon in one’s mouth” (born wealthy)] (1801) : WEALTH; esp. : inherited wealth
silver standard *n* (1860) : a monetary standard under which the currency unit is defined by a stated quantity of silver
Silver Star Medal *n* (1932) : a U.S. military decoration awarded for gallantry in action
sil-ver-tongued \sīl-vər-təŋd/ *adj* (1592) : marked by convincing and eloquent expression
sil-ver-ware \sīl-vər-war, -wər/ *n* (1860) 1 : SILVER PLATE 1 2 : FLATWARE
sil-ver-weed \sīl-vəd/ *n* (1578) : any of several cinquefoils with leaves silvery or white-tomentose beneath; esp. : one (*Potentilla anserina*) with silky hairs over the entire plant
sil-very \sīl-v(ə)-rē/ *adj* (14c) 1 : having the luster of silver 2 : having a soft clear musical tone : RESONANT (a ~ voice) 3 : containing or consisting of silver — **sil-ver-i-ness** *n*
sil-vex \sīl-ˈvɛks/ *n* [prob. fr. L *silva* wood + E exterminator] (1961) : a selective herbicide C₉H₇Cl₃O₃ esp. effective in controlling woody plants but toxic to animals
sil-vi-cul-ture \sīl-və-kəl-ˈchər/ *n* [F, fr. L *silva* + *cultura* culture] (1880) : a branch of forestry dealing with the development and care of forests — **sil-vi-cul-tur-al** \sīl-və-kəlch-rəl, -ˈkəl-ˈchə-/ *adj* — **sil-vi-cul-tur-al-ly** \sīl-və-kəlch-rəl-ē/ *adv* — **sil-vi-cul-tur-ist** \sīl-və-kəlch-rīst, -ˈkəl-ˈchə-/ *n*
si-ma-zine \sī-mə-zēn/ *n* [sim- (prob. alter. of sym- symmetrical, prefix used in names of organic compounds) + triazine] (1956) : a selective herbicide C₇H₁₂N₂Cl used to control weeds esp. among crop plants
Sim-chas To-rah \sīm-kəs-ˈtōr-ə, -ˈtōr-/ *n* [Heb *simḥath tōrah* rejoicing of the Torah] (1891) : a Jewish holiday observed on the 23d of Tishri in celebration of the completion of the annual reading of the Torah
Sim-e-on \sī-mē-ən/ *n* [LL, fr. Gk *Symeōn*, fr. Heb *Shimʿon*] 1 : a son of Jacob and the traditional eponymous ancestor of one of the tribes of Israel 2 : a devout man of Jerusalem held to have uttered the Nunc Dimittis on seeing the infant Jesus in the temple
sim-i-an \sī-mē-ən/ *adj* [L *simia* ape, fr. *simus* snub-nosed, fr. Gk *simos*] (1607) : of, relating to, or resembling monkeys or apes
simian *n* (1880) : MONKEY, APE
sim-i-lar \sī-mə-lər, -lār/ *adj* [F *similaire*, fr. L *similis* like, similar — more at SAME] (1611) 1 : having characteristics in common : strictly comparable 2 : alike in substance or essentials : CORRESPONDING (no two animal habitats are exactly ~ — W. H. Dowdeswell) 3 : not differing in shape but only in size or position (~ triangles) (~ polygons) — **sim-i-lar-ly** *adv*
syn SIMILAR, ANALOGOUS, PARALLEL mean closely resembling each other. SIMILAR implies the possibility of being mistaken for each other (all the houses in the development are *similar*). ANALOGOUS applies to things belonging in essentially different categories but nevertheless having many similarities (analogous political systems). PARALLEL suggests a marked likeness in the development of two things (the *parallel* careers of two movie stars).
sim-i-lar-i-ty \sī-mə-lər-ə-tē/ *n*, *pl* -ties (1664) 1 : the quality or state of being similar : RESEMBLANCE 2 : a comparable aspect : CORRESPONDENCE **syn** see LIKENESS
sim-i-le \sī-mə-(l)ē/ *n* [ME, fr. L, comparison, fr. neut. of *similis*] (14c) : a figure of speech comparing two unlike things that is often introduced by *like* or *as* (as in *cheeks like roses*) — compare METAPHOR
sim-il-i-tude \sə-ˈmī-lə-tüd, -tyüd/ *n* [ME, fr. MF, resemblance, likeness, fr. L *similitudo*, fr. *similis*] (14c) 1 a : COUNTERPART, DOUBLE b : a visible likeness : IMAGE 2 : an imaginative comparison : SIMILE 3 a : correspondence in kind or quality b : a point of comparison **syn** see LIKENESS
Sim-men-tal also **Sim-men-thal** \ˈzī-mən-ˈtāl/ *n* [*Simmental*, valley of the Simme River in Switzerland] (1906) : any of a breed of large buff or dull red and white cattle of Swiss origin that are used widely throughout the world for meat and milk
sim-mer \sī-mər/ *vb* **sim-mered**; **sim-mer-ing** \sī-mə-rīŋ, -sīm-rīŋ/ [alter. of E dial. *simper*, fr. ME *simperen*, of imit. origin] *vi* (1653) 1 : to stew gently below or just at the boiling point 2 a : to be in a state of incipient development : FERMENT (ideas ~ing in the back of my mind) b : to be in inward turmoil : SEETHE ~ *vi* : to cook slowly in a liquid just below the boiling point
simmer *n* (1809) : the state of simmering
simmer down *vi* (1871) 1 : to become calm or peaceful 2 : to become reduced by or as if by simmering
sim-nel \sīm-nəl/ *n* [ME *simenel*, fr. MF, ultim. fr. L *simila* wheat flour] (13c) 1 : a bun or bread of fine wheat flour 2 *Brii* : a rich fruitcake sometimes coated with almond paste and baked for mid-Lent, Easter, and Christmas
si-mo-le-on \sə-ˈmō-lē-ən/ *n* [origin unknown] (1896) *slang* : DOLLAR
Si-mon \sī-mən/ *n* [Gk *Simōn*, fr. Heb *Shimʿon*] 1 : PETER — called

\ə/ abut \ʌ/ kitten, F table \ər/ further \ə/ ash \ā/ ace \ä/ mop, mar
 \au/ out \ch/ chin \e/ bet \ē/ easy \g/ go \i/ hit \ī/ ice \j/ job
 \ŋ/ sing \ō/ go \ó/ law \oi/ boy \ih/ thin \ih/ the \ü/ loot \u/ foot
 \y/ yet \zh/ vision \ä, k, p, æ, œ, u, ē, \ see Guide to Pronunciation